## PCT/US99/17177

## WHAT IS CLAIMED IS:

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1. An indole alkaloid compound having a molecular weight greater than about 980 daltons.

- 2. A trimer alkaloid compound having a molecular weight of greater than about 980 daltons, having at least one vindoline or vindoline-based monomer.
- 3. A compound isolated from a *Catharanthus* plant having a molecular weight in the range of about 980 to about 2000 daltons, having at least one vindoline or vindoline-based monomer.
- 4. The compound of claim 2, having a second vindoline or vindoline-based monomer.
- 5. The compound of claim 4, having a third monomer selected from the group consisting of vindoline, catharanthine, vindoline-based and other monomers.
  - 6. The compound of any one of claims 2 to 4, having a catharanthine monomer.
  - 7. The compound of claim 4, having a molecular weight selected from the group of molecular weights set forth in Table 5.
  - 8. The compound of claim 4, having a molecular weight of about 1279 daltons.
  - 9. The compound of claim 4, having a molecular weight of about 1281 daltons.
  - 10. The compound of claim 4, having a molecular weight of about 1283 daltons.
  - 11. The compound of claim 4, having a molecular weight of about 1347 daltons.
  - 15. The compound of claim 4, having a molecular weight of about 1351 daltons.

14. An extract of a Catharanthus plant, said extract containing one or more compounds, having a molecular weight in the range of about 980 to about 2000 daltons, having at least one vindoline or vindoline-based monomer.

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15. An extract of a Catharanthus plant resistant to Phytophthora, said extract containing one or more compounds, having a molecular weight in the range of from about 980 to about 2000 daltons, having at least one vindoline or vindoline-based monomer.

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- 16. The extract of claim 14, having a second vindoline or vindoline-based monomer.
  - 17. The extract of claim 14, wherein said compound further has a third indole monomer, selected from the group consisting of vindoline, catharanthine, vindoline-based and other monomers.

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The extract of claim 14, having a compound with a molecular weight of from about 1279 18. to about 1283.

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19. The extract of claim 14, having a compound with a molecular weight of from about 1347 to about 1351.

20. A trimer compound isolated from a Catharanthus plant resistant to Phytophthora having a molecular weight greater than about 980 daltons.

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21. A compound isolated from a Catharanthus plant resistant to Phytophthora having a molecular weight in the range of from about 980 to about 2000 daltons, having at least one vindoline or vindoline-based monomer.

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22. A derivative or a pharmaceutically acceptable salt of the compound of any one of claims 23. A pharmaceutical composition comprising an effective amount of the compound of any one of claims 3, 6, 20 and 21 or a pharmaceutically acceptable salt thereof as an active agent and a pharmaceutically acceptable carrier.

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- 5 24. A pharmaceutical composition comprising an effective amount of the extract of any one of claims 14 to 19 as an active agent and a pharmaceutically acceptable carrier.
  - 25. A pharmaceutical composition comprising an effective amount of the derivative or pharmaceutically acceptable salt of claim 22 as an active agent and a pharmaceutically acceptable carrier.
  - 26. A method comprising administering the pharmaceutical composition of claim 23 to an individual in need of said agent.
  - 27. A method comprising administering the pharmaceutical composition of claim 24 to an individual in need of said agent.
  - 28. A method comprising administering the pharmaceutical composition of claim 25 to an individual in need of said agent.
  - 29. A method comprising administering the pharmaceutical composition of claim 23 to a plant in need of said agent.
  - 30. A method comprising administering the pharmaceutical composition of claim 24 to a plant in need of said agent.
  - 31. A method comprising administering the pharmaceutical composition of claim 25 to a plant in need of said agent.

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The method of any one of claims 20 to 28, wherein said individual has a fungal infection.

- 34. The method of any one of claims 29 to 31, wherein said administration is to protect said plant against disease.
- 5 35. The method of any one of claims 29 to 31, wherein said administration is to protect said plant against predation.

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